

**ABSTRACT**

Described are techniques used for detection of inconsistent data structures. The state of a data structure is determined as "inconsistent" in accordance with a defined specification. In the event that a data structure is determined to be inconsistent, the data structure may be repaired. In the event that the repair fails in connection with a read or a write operation, the executing program may optionally take steps to allow the program to continue execution. In connection with a read operation, any value may be returned as a result of the read. In connection with a write operation, the data to be written is discarded such that no write of data is performed and program execution continues. The detection and repairs are determined in accordance with user specifications.